

IN THE CLAIMS:

Please enter the following amendments and/or additions:

1. (Currently Amended) A reductase comprising
 - i) an amino acid sequence of SEQ ID NO: 1 having a substitution at amino acid position 245 or 271 or at both of the amino acid positions 245 and 271, or
 - ii) an amino acid sequence as defined in I) having further substitution, deletion, or addition of an amino acid or ~~acids~~acids.
2. (Currently Amended) A reductase according to claim 1, which comprises an amino acid sequence of SEQ ID NO: 1 having a substitution at amino acid position 245 or 271 or at both of the amino acid positions 245 and ~~271~~271.
3. (Original) A reductase according to claim 1 or 2, wherein said substitution is a single amino acid substitution at amino acid positions 245 in the amino acid sequence of SEQ ID NO: 1.
4. (Currently Amended) A reductase according to claim 1 or 2, wherein said substitution is a single amino acid ~~substitution~~substitution at amino acid position 271 in the amino acid sequence of SEQ ID NO: 1.
5. (Original) A reductase according to claim 1 or 2, wherein the amino acids at positions 245 and 271 of the amino acid sequence of SEQ ID NO: 1 are substituted a same amino acid or different amino acids.

6. (Currently Amended) A reductase according to claim ~~3~~~~or 5~~, wherein the amino acid at amino acid position 245 is substituted with arginine.

7. (Currently Amended) A reductase according to claim ~~4~~~~or 5~~, wherein the amino acid at amino acid position 271 is substituted with aspartic acid.

8. (Original) A reductase according to claim 1, wherein the amino acid at amino acid position 245 of the amino acid sequence of SEQ ID NO: 1 is substituted with arginine, and the amino acid at amino acid position 271 of the amino acid sequence of SEQ ID NO: 1 is substituted with aspartic acid.

9. (Original) A polynucleotide sequence comprising a polynucleotide sequence encoding an amino acid sequence of the reductase of claim 1 or 2.

10. (Original) A vector comprising the polynucleotide of claim 9.

11. (Currently Amended) A transformant comprising the polynucleotide sequence of claim 9 ~~or the vector of claim 10~~.

12. (Original) A vector according to claim 10, which further comprises a polynucleotide sequence encoding an amino acid sequence of a protein capable of converting an NADP or an NAD into NADPH or NADH respectively.

13. (Original) A transformant of claim 11, which further comprises a polynucleotide sequence encoding the amino acid sequence of a protein capable of converting an NADP or NAD into NADPH or NADH respectively.

14. (Currently Amended) A method for producing (S)-halo-3-hydroxybutyrate ester, which comprises reacting 4-halo-3-oxobutyrate ester with the transformant of claim 11 ~~or claim 13~~ or a treated material thereof.

15. (Original) A method for modifying an enzyme, which comprises substituting at least one of the amino acids at positions 245 and 271 of the amino acid sequence of SEQ ID NO:1 respectively with another amino acid(s), thereby heat stability of said enzyme in the reduction reaction is improved.

16. (Original) A method for producing a modified enzyme gene, which comprises replacing at least one codon corresponding to the amino acids at positions 245 and 271 of the amino acid sequence of SEQ ID NO: 1, with another codon or codons corresponding to an amino acid(s), in a nucleotide sequence encoding the amino acid sequence of SEQ ID NO: 1.

17. (Newly Added) A reductase according to claim 5, wherein the amino acid at amino acid position 245 is substituted with arginine.

18. (Newly Added) A reductase according to claim 5, wherein the amino acid at amino acid position 271 is substituted with aspartic acid.

19. (Newly Added) A transformant comprising the vector of claim 10.

20. (Newly Added) A transformant of claim 19, which further comprises a polynucleotide sequence encoding the amino acid sequence of a protein capable of converting an NADP or NAD into NADPH or NADH respectively.

21. (Newly Added) A method for producing (S)-halo-3-hydroxybutyrate ester, which comprises reacting 4-halo-3-oxobutyrate ester with the transformant of claim 13 or a treated material thereof.

22. (Newly Added) A method for producing (S)-halo-3-hydroxybutyrate ester, which comprises reacting 4-halo-3-oxobutyrate ester with the transformant of claim 19 or a treated material thereof.